INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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P.O. Box 6015
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Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

Via Certified Mail P 451 351 011

Sept. 5, 1997

Mr. Robert Feddeler
R & M Enterprises, Inc.
18501 Clark Road
Lowell, IN 46356

Re: Monitoring Well Inspection Results
Feddeler C/D Site, FP#45-08

Mr. Feddeler,

On August 26, 1997, Mr. Greg Overtoom of IDEM's Solid Waste Geology Section conducted an inspection of the ground water monitoring wells at the Feddeler C/D Site. All wells were found to be in satisfactory condition. Monitoring wells MW-1, MW-8, MW-6, and MW-4 were obstructed by grass and weeds which must be cut or removed prior to any scheduled ground water sampling event. The Ground Water Monitoring Well and Piezometer Inspection Sheets from the inspection are enclosed.

If you have any questions regarding this matter please contact Mr. Greg Overtoom by E-mail at gover@opn.dem.state.in.us or by phone at (317) 233-0579.

Sincerely,

David L. Becka, C.P.G., Chief
Solid Waste Geology Section
Solid and Hazardous Waste Management

GJO:gjo
Enclosures: Well Inspection Sheets (6)
cc: Lake County Health Department w/enclosures
Lake County Solid Waste Management District w/enclosures
Mr. Joseph Scodro, Bingham Summers Welsh & Spillman w/enclosures
Mr. Henry Kaszuba w/enclosures

Ground Water Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Facility Name: Fiddler C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-1

(Upgradient) Downgradient, Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? Yes (No)
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature B/A Otis

Date 8/26/97

Ground[redacted]ter Monitoring Well and Piezomet[redacted]spection Sheet

Inspection Date: 8/26/97

Facility Name: Feddeler C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-8

(Upgradient,) Downgradient, Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? Yes (No)
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Ground Water Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Facility Name: Feddeler C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-5

(Upgradient,) Downgradient, Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Ground[redacted]ter Monitoring Well and Piezomet[redacted]spection Sheet

Inspection Date: 8/26/97

Facility Name: Fellows C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-6

(Upgradient) Downgradient, Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor (OK) Excellent
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? Yes (No)
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Ground Water Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Facility Name: Feddeler C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-4

Upgradient, (Downgradient,) Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor (OK) Excellent
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? Yes (No)
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature B J Otto

Date 8/26/97

Ground[redacted]er Monitoring Well and Piezometer[redacted]spection Sheet

Inspection Date: 8/26/97

Facility Name: Feddeler C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-11

Upgradient, (Downgradient) Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of (concrete) or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Groundwater Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Monitoring Well or Piezometer I.D. #: MW-3

Facility Name: Feddeler C/D site

Upgradient, (Downgradient), Other

County: Lake

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor (OK) Excellent
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature B/ Otte

Date 8/26/97

Ground[redacted]er Monitoring Well and Piezomet[redacted]spection Sheet

Inspection Date: 8/26/97

Facility Name: Fellula CID site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-2

Upgradient, (Downgradient,) Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor (OK) Excellent
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Ground Water Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Facility Name: Fedder C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-7

Upgradient, (Downgradient), Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Groundwater Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Facility Name: Fehlhaber C/D site

County: Lake

Monitoring Well or Piezometer I.D. #: MW-10

Upgradient, (Downgradient,) Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Groundwater Monitoring Well and Piezometer Inspection Sheet

Inspection Date: 8/26/97

Monitoring Well or Piezometer I.D. #: MW-9

Facility Name: Fehlhaber C/D site

Upgradient, (Downgradient) Other

County: Lake

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK (Excellent)
2. Well reasonably protected from traffic? (Yes) No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? (Yes) No
4. Well identification (marker)? None Poor Replace (OK) Excellent
5. Condition of padlock? None Replace OK (New)
6. Evidence of frost heaving? Yes (No) Evidence of well subsidence? Yes (No)
7. Condition of outside casing? None Needs Repair Extensive Rust OK (Excellent)
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK (Excellent)
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK (Excellent)
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK (Excellent)
11. Do either the outer or inner casings appear loose? Yes (No)
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK (Excellent)
13. Location of well survey mark? None Replace Outside Casing (Inside Casing)
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent (New)
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes (No)
16. Adequate drainage slope of concrete or sod-covered pad? (Yes) No
17. Does the well need to be replaced? Yes (No)

Additional Comments:

Signature [signature]

Date 8/26/97

Groundwater Monitoring Well and Piezometer Inspection Sheet

Inspection Date: _____

Facility Name: _____

County: _____

Monitoring Well or Piezometer I.D. #: _____

Upgradient, Downgradient, Other

At each well observed, note any indications of poor well installation or maintenance. Poor conditions may lead to contaminated or unrepresentative groundwater samples. Items to inspect include:

1. Vehicle access to well? None Poor OK Excellent
2. Well reasonably protected from traffic? Yes No Need Bumper Guards
3. Grass, trees, trash, and other obstructions cleared around well? Yes No
4. Well identification (marker)? None Poor Replace OK Excellent
5. Condition of padlock? None Replace OK New
6. Evidence of frost heaving? Yes No Evidence of well subsidence? Yes No
7. Condition of outside casing? None Needs Repair Extensive Rust OK Excellent
8. Condition of outside casing cover? None Needs Repair Extensive Rust OK Excellent
9. Condition of area between outside casing and inside casing (riser)? NA Poor OK Excellent
10. Condition of inside casing (riser)? Needs Repair Extensive Staining OK Excellent
11. Do either the outer or inner casings appear loose? Yes No
12. Condition of inside casing cap (including vent hole)? None Poor Replace OK Excellent
13. Location of well survey mark? None Replace Outside Casing Inside Casing
14. Condition of concrete or sod-covered pad? None Replace Cracked OK Excellent New
15. Concrete or sod-covered pad extends at least 2.5 ft from well casing? Yes No
16. Adequate drainage slope of concrete or sod-covered pad? Yes No
17. Does the well need to be replaced? Yes No

Additional Comments:

Signature _____

Date _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Frank O'Bannon
Governor

John M. Hamilton
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

Via Certified Mail P 451 350 998

Mr. Robert Feddeler
R & M Enterprises, Inc.
18501 Clark Road
Lowell, IN 46356

August 20, 1997

Re: Sampling of Downgradient Wells
Feddeler C/D Landfill, #45-08
Lake County

Mr. Feddeler,

This letter is in response to the letter dated July 2, 1997 from Mr. Joseph Scodro of Bingham Summers Welsh & Spillman regarding initiation of the ground water sampling program at the Feddeler C/D Landfill in Lake County. Mr. Scodro's letter requested that sampling of the downgradient wells at the landfill be postponed until the dispute over the eastern property boundary of the landfill is resolved and additional ground water monitoring wells can be installed. Also in the July 2 letter, R & M Enterprises offered to begin sampling the four (4) upgradient monitoring wells provided that IDEM acknowledges that the wells are upgradient and that any potential contaminants found in the wells are not the result of filling operations at the Feddeler C/D Landfill.

IDEM agrees that the current monitoring well system at the landfill is not complete for ground water monitoring because none of the current downgradient wells (MW-2, MW-7, MW-9, MW-10, and MW-11) are located properly to capture the southeasterly flow of the ground water that flows from beneath the landfill (IDEM Certified Letter P 451 350 970 dated May 12, 1997). However, the current adverse possession claim on the property along the eastern side of the landfill prevents R & M Enterprises from installing the two (2) additional monitoring wells needed to achieve an adequate ground water monitoring system. To assure that ground water flowing from under the landfill is sampled, sampling of the monitoring wells currently located in a downgradient position from the landfill may be delayed until the additional wells can be installed. If the property boundary dispute cannot be resolved, R & M Enterprises must submit a proposal for an alternative downgradient monitoring well system design to IDEM by December 31, 1997.

Sampling of the four (4) wells (MW-1, MW-3, MW-5, and MW-8) currently located in

an upgradient position relative to the landfill may not be delayed until the additional wells are installed. IDEM acknowledges that these wells were upgradient with respect to the ground water flow at the time that ground water levels were collected (July, August, September, and October 1996). However, ground water flow gradients can vary sufficiently to cause an upgradient well to become a downgradient well. Due to the potential for changes in the ground water flow gradient, IDEM will not acknowledge prior to sample collection and analysis that any contamination detected in these wells is not the result of fill operations at the Feddeler C/D Landfill. IDEM confirms the existence and source of contamination in a ground water sample only as a result of evaluating all of the data collected during sampling and analysis of the ground water sample.

If you have any questions regarding this matter please contact Mr. Greg Overtoom by e-mail at gover@opn.dem.state.in.us or by phone at (317) 233-0579.

Sincerely,

David L. Becka, C.P.G., Chief
Solid Waste Geology Section
Solid and Hazardous Waste Management

GJO:gjo
cc: Lake County Health Department
Lake County Solid Waste Management District
Mr. Tim Miller, Cole Associates
Mr. Joseph Scodro, Bingham Summers Welsh & Spillman

Lake Co.

bcc: Mr. Greg Overtoom
Mr. Jeff Sewell
Mr. David Becka
Mr. Bob Lamprecht
Mr. Bill Burns
Ms. Laura Steadham
File 2C1d, Feddeler C/D Landfill, OPP# 45-08

File 2010
Feddeler C/D site
#45-08
Lake County

BINGHAM SUMMERS
WELSH & SPILMAN
Attorneys at Law

Joseph M. Scodro
Attorney
Direct: 317-635-8901, Ext. 228
jms@bsws.com

July 2, 1997

VIA FACSIMILE AND FIRST CLASS MAIL

David L. Becka, C.P.G., Chief
Indiana Department of Environmental Management
Solid Waste Geology Section
Solid and Hazardous Waste Management
100 North Senate Avenue
P.O. Box 5015
Indianapolis, IN 46206-6015

Re: R&M Enterprises, Inc. - Hydrogeologic Investigation
Our File No: 5826-25930

Dear Mr. Becka:

This is in connection with your May 12, 1997, letter which was received by Mr. Feddeler via hand-delivery on Monday, June 30, 1997, as well as my good conversations with Mr. Greg Overtoom of your office on June 30, 1997. Your May 12, 1997, letter indicates that it is the judgment of IDEM that two additional monitoring wells be installed along the eastern boundary of the landfill. Your letter goes on to indicate that:

> [t]he current monitoring system is not adequate to monitor the southeasterly flow direction of the ground water. IDEM understands that the eastern property boundary of the landfill is currently under dispute, but ground water monitoring along this boundary is necessary to ensure adequate protection of ground water resources.

As you are aware, neighbors immediately east of the existing construction and demolition landfill have filed an adverse possession claim against R&M Enterprises, Inc. and others asserting title to a strip of property along the eastern boundary of the existing construction and demolition landfill. Under threat of injunction, R&M Enterprises, Inc. agreed to undertake no action along the disputed strip of property. Enclosed please find my October 9, 1996, letter to counsel for the plaintiffs in that litigation indicating R&M Enterprises, Inc.'s agreement to refrain from undertaking any activity along the disputed property line.

As a result of the adverse possession litigation instituted by the neighbors to the east of the existing construction and demolition landfill, R&M Enterprises, Inc. has been unable to install permanent boundary markers along the eastern boundary. In fact, R&M Enterprises, Inc. recently received a written

BINGHAM SUMMERS
WELSH & SPILMAN
Attorneys at Law

acknowledgement from Ms. Leah Foutty of your office that permanent boundary markers need not be placed along the eastern boundary in light of the pending litigation. Unfortunately, the pending litigation also prevents R&M Enterprises, Inc. from installing any monitoring wells along the eastern boundary. Installation of any groundwater monitoring wells along the eastern boundary would require that R&M Enterprises, Inc. undertake activities along the disputed strip in violation of the current agreement with the plaintiffs in the pending litigation.

Based upon your May 12, 1997, letter and my discussions with Greg Overtoom of your office, it is my understanding that commencement of the groundwater monitoring program in connection with the existing construction and demolition facility should be deferred indefinitely pending resolution of the pending adverse possession litigation. As an accommodation, however, R&M Enterprises, Inc. would be willing to draw samples from the upgradient wells situated to the north of the existing construction and demolition landfill facility. However, R&M Enterprises, Inc.'s agreement to do so must be conditioned on IDEM's acknowledgement that these will constitute upgradient samples and that any materials that may be detected in said samples cannot be associated with conditions at the existing construction and demolition landfill facility.

Inasmuch as this response letter will be received by your office within the sixty (60) day time-frame specified in your May 12, 1997 letter, and based on my discussions with Greg Overtoom of your office, R & M Enterprises, Inc. understands that the requirements and recommendations contained in your May 12, 1997 letter are suspended indefinitely pending further word from your office. Thus, R & M Enterprises, Inc. is in compliance with the provisions of its operating permit related to groundwater monitoring. Your prompt acknowledgement and response to this letter will be greatly appreciated. If you have any questions, please do not hesitate to contact me.

Very truly yours,

Joseph M. Scodro

JMS:clw/298675
Enclosures

BINGHAM SUMMERS
WELSH & SPILMAN
Attorneys at Law

cc: Greg Overtoom

File 2C1d
Feddeler C/D site
045-09

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Lake County

Frank O'Bannon
Governor

Michael O'Connor
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

Via Certified Mail P 451 350 970

May 12, 1997

Mr. Robert Feddeler
R & M Enterprises, Inc.
18501 Clark Road
Lowell, IN 46356

Re: Review of Hydrogeologic Investigation
Feddeler Landfill, Lake County

Mr. Feddeler,

We have reviewed the "Hydrogeologic Investigation at Feddeler Landfill, Lowell, Indiana" received by IDEM on December 23, 1996. Based on the ground water flow vectors shown on the potentiometric maps (Plats 6 thru 8a) and the Conceptual Model of Ground Water Flow (Plat 9), IDEM requires that at least two (2) additional monitoring wells be installed along the eastern boundary of the landfill. The current monitoring system is not adequate to monitor the southeasterly flow direction of the ground water. IDEM understands that the eastern property boundary of the landfill is currently under dispute, but ground water monitoring along this boundary is necessary to ensure adequate protection of ground water resources.

IDEM also recommends that sampling should be initiated on the existing monitoring well system within the sixty (60) days following receipt of this letter. Subsequent sampling events must be scheduled in accordance with the sampling schedule specified in condition D10 of the Operating Permit Renewal dated June 13, 1995.

If you have any questions regarding this matter please contact Mr. Greg Overtoom by E-mail at gover@opn.dem.state.in.us or by phone at (317) 233-0579.

Sincerely,

David L. Becka, C.P.G., Chief
Solid Waste Geology Section
Solid and Hazardous Waste Management

GJO:gjo

cc: Lake County Health Department
Lake County Solid Waste Management District
Mr. Tim Miller, Cole Associates

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

Michael O'Connor
Commissioner

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Via Certified Mail P 451 350 953

Mr. Robert Feddeler
R & M Enterprises, Inc.
18501 Clark Road
Lowell, IN 46356

April 7, 1997

Re: Review of Hydrogeologic Investigation
Feddeler Landfill, Lake County

Mr. Feddeler,

We have reviewed the "Hydrogeologic Investigation at Feddeler Landfill, Lowell, Indiana" received by IDEM on December 23, 1996. Based on the ground water flow vectors shown on the potentiometric maps (Plats 6 thru 8a) and the Conceptual Model of Ground Water Flow (Plat 9), IDEM requires that at least two (2) additional monitoring wells be installed along the eastern boundary of the landfill. The current monitoring system is not adequate to monitor the southeasterly flow direction of the ground water. IDEM understands that the eastern property boundary of the landfill is currently under dispute, but ground water monitoring along this boundary is necessary to ensure adequate protection of ground water resources.

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Sincerely,

David L. Becka, C.P.G., Chief
Solid Waste Geology Section
Solid and Hazardous Waste Management

GJO:gjo

cc: Lake County Health Department
Lake County Solid Waste Management District
Mr. Tim Miller, Cole Associates

5785

WATER SAMPLE IDENTIFICATION SHEET

Sample Site: Feddeler Dump Site
U.S. 2, 1 mi E of U.S. 41
Ponded Leachate

Station Number: _____

Sample Date: 10 (Mo. 11-12) 14 (Day 13-14) 80 (Yr. 15-16) 4:00 AM/PM

Supervisor: Dan Magoun 0176

Collector(s): George Oliver, Gary Lindgren

Delivered to lab: 10 (Mo.) 16 (Day) 80 (Yr.) 1:00 AM/PM

By: George Oliver

	Kind	Lot No.	Amount
Preservatives Added:			

Sample Chlorinated _____ Not Chlorinated _____

	Field	Lab
No. of 1 Liter Plastic Bottles		
No. of 2 Liter Plastic Bottles		
No. of Bacteriological Bottles		
No. of Glass Jars or Bottles		
Total		

Standard Procedure Followed: All Some None

NPDES Number _____ (1-7) Outfall _____ (8-10)

17 _____
1. NPDES
2. SPC-15
3. WQ Study
4. Pollution complaint
5. Fish kill investigation

18 _____
1. Industry
2. Semi-Public
3. Municipal
4. Federal
5. Public Water Supply
6. State operation
7. Other

19 _____ Sample Type
1. Grab
2. 24-hour comp.
3. 8-hour comp.
4. 24-hour flow comp.
5. 8-hour flow comp.

20 _____ Sample Interval

21 _____
0 - at outfall
1 - above outfall
2 - below outfall

22-26 _____ Stream miles from outfall

LAB INFORMATION

Lab No. _____ Date _____ (Mo. Day Yr. AM/PM)

Rec'd by _____

Temp of samples when received _____

Comments:

CODE	PARAMETERS	UNIT		LAB DATA
28-32 00410	Alkalinity Total $CaCO_3$	mg/l		34-41
00610	Ammonia-N	mg/l		
01002	Arsenic	ug/l		2 Cld
00310	BOD_5	mg/l		
01027	Cadmium	ug/l		
00940	Chlorides	mg/l		
01032	Chromium-Hex	ug/l		
01034	Chromium-Tot	ug/l		
00335	COD	mg/l	✓	890.0
01042	Copper	ug/l		
00720	Cyanide-CN	mg/l		
00951	Fluoride	mg/l		
01045	Iron	ug/l		
01051	Lead	ug/l		
01055	Manganese	ug/l		
71900	Mercury	ug/l		
01067	Nickel	ug/l		
00630	NO_2+NO_3-N	mg/l		
00550	Oil & Grease	mg/l		
00403	pH (lab)	S.U.	✓	7.0x
32730	Phenol	ug/l	✓	80 ug/L
00665	Phosphorus-P	mg/l		
00530	Solids - Susp	mg/l		
00500	Solids (total)	mg/l		
00945	Sulfate	mg/l		
00625	TKN	mg/l		
00680	TOC	mg/l		
01092	Zinc	ug/l		
31616	Fecal coliform	100 ml		
	run coal tar residues by HPLC			
	no polynuclear aromatic hydrocarbons detected by HPLC			

Reported to George Oliver 12-9-80 JR

SRH65-030
State Form 1400

Card No. 27	1	1	1	1	1	1
Para. No. 28-32	00001	00010	00300	00400	50050	50060
	Time, hr	Temp, °C	DO	pH	Flow, MGD	Res. Chl. mg/l
34-41						
42-49						
50-57						
58-65						
Card No. 27	2	2	2	2	2	2
Para. No. 28-32	00001	00010	00300	00400	50050	50060
34-41						
42-49						
50-57						
58-65						

Card No. 27	3	3	3	3	3	3
Para. No. 28-32	00001	00010	00300	00400	50050	50060
34-41						
42-49						
50-57						
58-65						

PRESERVATION OF SAMPLES

Determination	Preservative		Size & Type of Container
General Chemistry:			
Acidity	MBAS		
Alkalinity	Nitrite-N		
BOD	Phosphorus, Ortho		
Calcium	pH		
Chloride	Residues	Iced or Refrigerated	2 liter plastic
Chlorine Residual			
Chromium, Hex.	Specific Cond.		
Color	Sulfate		
Fluoride	Tannin, Lignin		
Hardness	Turbidity		
Odor		Iced or Refrig.	500 ml glass
Pesticides			
PCB		Iced or Refrig.	Special solvent rinsed glass
Phthalate			
Metals:			
Aluminum	Manganese		
Arsenic	Nickel		
Cadmium	Potassium		
Chromium, Total	Sodium	5 ml HNO_3/liter	1 liter plastic
Copper	Silver		
Iron	Zinc		
Lead			
Nutrients:			
Nitrogen	COD		
Ammonia	TOC		
Nitrate	Phosphorus, Total	2 ml 50% H_2SO_4/liter	1 liter plastic
Organic			
Total			
Cyanide		1 ml 50% NaOH/liter	1 liter plastic
Mercury		20 ml (2.5% $K_2Cr_2O_7$ in 25% HNO_3)/liter	1 liter plastic
Sulfide		2 ml $Zn(C_2H_3O_2)_2$ (2N) per liter.	1 liter plastic
Oil & Grease		2 ml 50% H_2SO_4/500 ml	500 ml glass
Phenol		2 ml 50% H_2SO_4/liter	1 liter plastic

The preservatives used conform with EPA recommended procedures.

Storage at low temperature is perhaps the best way to preserve samples until the next day. Chemical preservatives are to be used only when they are shown not to interfere with the examination to be made. When used, they should be added to the sample bottle and in the exact amount per volume of sample recommended.

Study no. 5785

Feddler Dump site on U.S. 2 1 mile east of U.S. 41 Ponded leachate

5785 - 1 & 2 both samples from the same site. Run phenols, COD and Cl

for anal. for residues by HPLC

received by John H Kuyach

10-16-80 1:35 PM

submitted by George Oliver

STATE BOARD OF HEALTH

INDIANAPOLIS

2 C 1 e

OFFICE MEMORANDUM

DATE: December 6, 1977

TO: File-Feddeler Dump
Lake County

THRU: 12/7/77

FROM: Jim King

SUBJECT: Geologic Description and Evaluation

GEOLOGY

The bedrock at this site consists of dolomites and limestones of the Middle Silurian (Niagaran) Series and dips toward the northeast.

Above the bedrock is 110 to 120 feet of unconsolidated material which can be divided into three distinct units. The deepest unit is a silty, sandy, pebbly clay till which rests directly upon the Silurian bedrock and contains some discontinuous lenses of sand and gravel. The next shallowest unit consists of medium to coarse sand which is somewhat silty, clayey, and pebbly. This unit is the area's principal aquifer and occurs at a depth of 20 to 45 feet beneath the site. The unit exposed at the surface is a silty, pebbly clay till associated with the Valparaiso morainal system. It usually contains isolated intertill lenses of sand and gravel and is 20 to 45 feet thick at the site.

GROUNDWATER

Groundwater use near this site is low to moderate. Water is pumped from the bedrock at depths usually less than 150 feet (a nearby well is about 117 feet in depth) and from glaciofluvial sands at depths of less than 50 feet. Most groundwater in this area is withdrawn from unconsolidated aquifers by wells with an average depth of approximately 45 feet. Groundwater exists under confined conditions and the hydraulic gradient in both the Silurian aquifer and the sand unit is generally toward the southeast in this area. The vertical hydraulic conductivity of the uppermost clay till unit is 3.3×10^{-7} cm/sec and that of the till resting upon the bedrock is 1.4×10^{-7} cm/sec. The sand unit between these tills has a hydraulic conductivity of .03 cm/sec, a coefficient of transmissivity of 14.4 to 34.5 cm^2/sec, and a storage coefficient of 0.003, which indicates partially confined aquifer conditions.

EVALUATION AND RECOMMENDATIONS

The site is geologically suitable for waste disposal, particularly in view of the types of wastes accepted (solid-fill material). Groundwater resources are adequately protected by the moderately to poorly permeable upper till unit and, for this reason, the establishment of a groundwater monitoring system is not necessary at this time.

JMKing